



BY JOHNSON CONTROLS

D*V Model Air Cooled Self Contained Indoor Packaged Units 2-25 Tons

Preliminary Application Data



July 28, 2008

PROJECT:

TAG:

Gross Cooling Capacity [Btuh]:	95,000*
Design CFM:	3,200
Energy Efficiency Ratio:	11.55 EER**
Net Cooling Capacity [Btuh]:	92,000**
Net Cooling CFM:	3,200
Evaporator Fan No./Type:	1/CENTRIFUGAL
Diameter x Width [in]:	12x15
Drive:	Adjustable Belt
Motor HP :	1.5 / 2.0
[Standard/Oversized]	
Condenser Fan No./Type:	2/CENTRIFUGAL
Diameter x Width [in]:	12x11
Drive:	Adjustable Belt
Motor HP :	2.0
[Standard]	

Evaporator Coil Face Area:	8.67 [sq ft]
Rows/FPI:	3/10
Refrigerant Control:	TX Valve
Condenser Coil Face Area:	12.28 [sq ft]
Rows/FPI:	4/14
Compressor No./Type:	2/Scroll
Refrigerant Circuits:	2 / Independent
Refrigerant:	R22
Charge:	8.75 Lbs./ circuit
Filters - Qty./Size:	4/14x25x2
Operating Weight [lbs.]:	1005
Shipping Weight [lbs.]:	1060
Condensate Connection:	3 / 4 NPT

*Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F wet bulb and CFM listed. Gross capacity does not include the effect of fan motor heat.

**Rated in accordance with ARI Standard 360-2000

EVAPORATOR FAN PERFORMANCE

MODEL #	SUPPLY CFM	EXTERNAL STATIC PRESSURE - Inches W.C.															
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV096	3000	734	0.76	809	0.89	881	1.02	950	1.17	1016	1.32	1079	1.47	1139	1.63	1196	1.79
	3200	771	0.90	843	1.03	911	1.17	977	1.32	1040	1.47	1101	1.63	1159	1.81	1214	2.01
	3400	811	1.06	879	1.20	944	1.35	1007	1.50	1068	1.66	1128	1.83	1187	2.01	-	-

NOTE:

1. At high evaporator air flows, and wet bulb conditions, condensate carry-over may occur. Adjust airflow downward as necessary.
2. Values include pressure drop from wet coil and clean filters.
3. Shaded areas indicate oversize motors.

CONDENSER FAN PERFORMANCE

MODEL #	OUTDOOR CFM	EXTERNAL STATIC PRESSURE - Inches W.C.							
		0.2		0.4		0.6		0.8	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV096	4700	737	1.19	811	1.38	882	1.59	951	1.82

ELECTRICAL DATA – STANDARD MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV096	208-230/3/60	2	@ 13.9	88.0	1.50	4.5	2.00	5.9	41.68	50
DPV096	460/3/60	2	@ 7.1	44.0	1.50	2.1	2.00	2.8	20.97	25
DPV096	575/3/60	2	@ 5.4	34.0	1.50	1.7	2.00	2.2	15.94	20

ELECTRICAL DATA – OVERSIZED MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV096	208-230/3/60	2	@ 13.9	88.0	2.00	5.9	2.00	5.9	43.08	50
DPV096	460/3/60	2	@ 7.1	44.0	2.00	2.8	2.00	2.8	21.67	25
DPV096	575/3/60	2	@ 5.4	34.0	2.00	2.2	2.00	2.2	16.44	20

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

DPV096 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA4 (308)

DATE:

March 2008

"DPV" SERIES VERTICAL INDOOR SYSTEM GENERAL MECHANICAL SPECIFICATIONS

GENERAL

All models 5-15 tons ship as factory-charged unitized packages. The 20 ton model shall be shipped as separate evaporator and condensing unit modules (nitrogen holding charge only). All units may be field split and installed as separate modules to suit on-site requirements. All packages are designed for free-standing mounting on the floor, or on a field fabricated structural steel stand. The 5, 8, and 10 ton models are shipped with vertical evaporator fan discharge as standard. The 12, 15, and 20 ton models are shipped horizontal discharge as standard.

CABINET

All cabinets are completely constructed of heavy gauge galvanized steel. The entire unit interior (both evaporator and condensing section) is insulated with 1/2" thick, 2 lb. density insulation. Service panels are equipped with lifting handles for ease of removal and handling. Duct flanges for condenser discharge, condenser intake, and evaporator discharges, are provided with the unit for field installation. Duct flange on evaporator return is incorporated into the filter frame.

COMPRESSORS

All models utilize "Scroll" type hermetic compressors. Compressors are mounted on rubber isolators to minimize vibration transmission. Internal overload protection is provided. External high pressure and low pressure cutout switches are included in each compressor control circuit. Crankcase heaters are standard on all models.

REFRIGERANT CIRCUITS

The 5 ton units have a single refrigeration circuit. The 8-20 ton units feature two independent refrigeration circuits. Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports.

EVAPORATOR AND CONDENSER COILS

The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins. Both coils are employed in a draw-thru configuration. Large evaporator coil face area minimizes potential water blow-off.

INDOOR/OUTDOOR FANS

Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement. Blower wheels are fabricated of galvanized steel. Blowers employ solid steel shafts, supported in permanently lubricated ball bearing. All blowers are belt driven. Variable-pitch motor sheaves allow for field adjustment of blower rpm.

ELECTRICAL/CONTROLS

All units are completely factory wired with all necessary controls. Manual reset protection is provided on both evaporator and condenser motors. A manual reset circuit is also provided on each compressor control circuit in the event of high/low pressure cutout. A 24 volt control circuit, with oversize transformer, is provided for field connection.

FILTERS

All models are shipped with 2-inch thick medium-efficiency throwaway filters factory installed. Filter rack is external to the cabinet (shipped loose).

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

MECHANICAL SPECIFICATIONS
DPV096 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA4 (308)

DATE: March 2008

8 TON		Ambient Condenser Air Temperature											
		85°F						95°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
3000	75°F	90.0	72.0	97.5	57.3	106.7	43.8	86.8	70.6	94.1	55.9	102.5	42.2
	80°F	91.3	86.7	98.2	71.6	107.6	57.8	88.4	85.8	94.7	70.2	103.4	56.2
	85°F	96.6	96.6	99.1	86.8	108.2	72.4	93.7	93.7	95.6	85.2	103.7	70.9
3200	75°F	91.1	74.1	98.3	58.5	107.1	44.1	87.7	72.6	94.8	57.0	102.8	42.5
	80°F	92.7	90.0	99.0	73.5	108.2	58.8	89.1	87.8	95.5	72.1	103.6	57.3
	85°F	98.3	98.3	100.1	89.4	108.6	74.3	95.3	95.3	96.5	87.9	104.0	72.7
3400	75°F	91.8	76.0	99.0	59.6	107.5	44.4	88.2	74.5	95.4	58.2	103.0	42.7
	80°F	93.4	92.0	99.7	75.4	108.4	59.8	92.3	92.3	96.1	74.0	103.8	58.2
	85°F	99.8	99.8	100.9	92.0	108.8	76.0	96.8	96.8	97.2	90.4	104.1	74.5

8 TON		Ambient Condenser Air Temperature											
		105°F						115°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
3000	75°F	83.3	69.1	90.3	54.3	97.9	40.5	79.4	67.4	86.2	52.7	92.7	38.5
	80°F	84.6	83.4	90.9	68.7	98.6	54.5	82.6	82.6	86.7	67.0	93.4	52.6
	85°F	90.7	90.7	91.8	83.6	98.9	69.1	87.3	87.3	87.7	81.8	93.5	67.3
3200	75°F	83.9	71.0	91.0	55.5	98.0	40.8	79.7	69.2	86.7	53.8	92.7	38.8
	80°F	87.5	87.5	91.5	70.6	98.7	55.5	84.0	84.0	87.2	69.0	93.3	53.6
	85°F	92.1	92.1	92.5	86.2	99.1	71.0	88.7	88.7	88.1	84.3	93.5	69.1
3400	75°F	84.3	72.9	91.5	56.6	98.2	41.0	81.4	72.1	87.2	54.9	92.7	39.0
	80°F	88.9	88.9	92.2	92.2	98.7	56.4	85.2	85.2	87.6	70.8	93.1	54.5
	85°F	93.5	93.5	93.0	88.6	99.0	72.7	89.9	89.9	90.3	87.8	93.2	62.6



BY JOHNSON CONTROLS

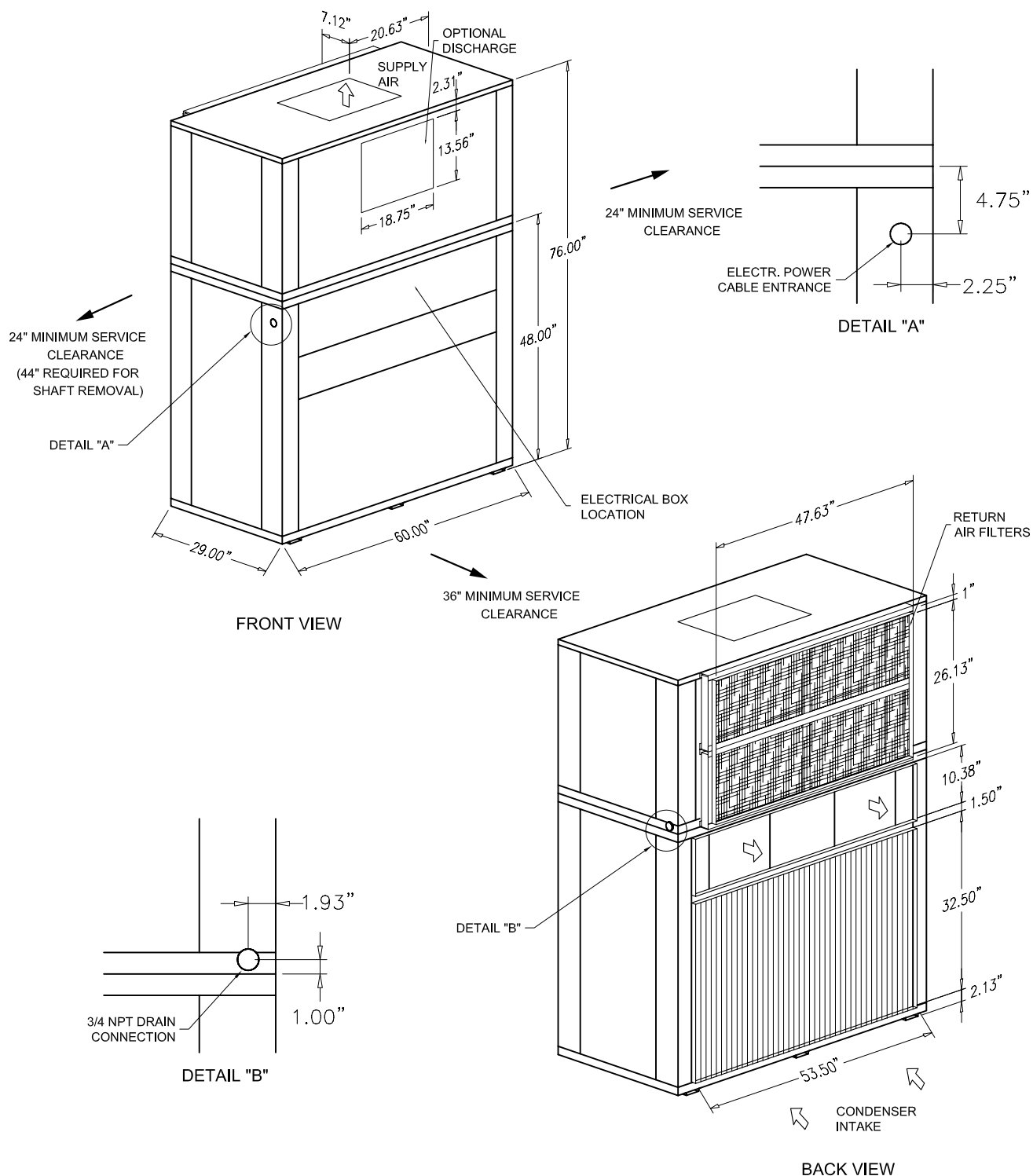
DESCRIPTION:

COOLING PERFORMANCE DATA
 DPV096 VERTICAL UNIT
 AIR-COOLED SELF-CONTAINED

Form YK145.12-PA4 (308)

DATE: March 2008

DPV096 AND DPV120 DIMENSIONAL DATA



PROJECT:

TAG:

Gross Cooling Capacity [Btuh]: 122,000*
Design CFM: 4,000

Energy Efficiency Ratio: 10.60 EER**
Net Cooling Capacity [Btuh]: 117,000**
Net Cooling CFM: 3,600

Evaporator Fan No./Type: 1/CENTRIFUGAL
Diameter x Width [in]: 12x15
Drive: Adjustable Belt
Motor HP: 2.0 / 3.0
[Standard/Oversized]

Condenser Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 12x11
Drive: Adjustable Belt
Motor HP: 3.0
[Standard]

Evaporator Coil Face Area: 8.67 [sq ft]
Rows/FPI: 4/10
Refrigerant Control: TX Valve

Condenser Coil Face Area: 12.28 [sq ft]
Rows/FPI: 4/14

Compressor No./Type: 2/Scroll
Refrigerant Circuits: 2 / Independent

Refrigerant: R22
Charge: 9.5 Lbs./ circuit

Filters - Qty./Size: 4/14x25x2

Operating Weight [lbs.]: 1065
Shipping Weight [lbs.]: 1110

Condensate Connection: 3 / 4 NPT

*Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F wet bulb and CFM listed. Gross capacity does not include the effect of fan motor heat.

**Rated in accordance with ARI Standard 360-2000

EVAPORATOR FAN PERFORMANCE

MODEL #	SUPPLY CFM	EXTERNAL STATIC PRESSURE - Inches W.C.															
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV120	3600	800	1.13	867	1.28	931	1.43	993	1.59	1052	1.74	1100	1.88	1158	2.11	1225	2.25
	4000	876	1.52	937	1.68	996	1.85	1052	2.01	1100	2.23	1154	2.31	1200	2.55	1263	2.72
	4400	951	1.98	1007	2.16	1062	2.35	1120	2.52	1178	2.76	1204	2.92	1263	3.15	-	-

NOTE:

- At high evaporator air flows, and wet bulb conditions, condensate carry-over may occur. Adjust airflow downward as necessary.
- Values include pressure drop from wet coil and clean filters.
- Shaded areas indicate oversize motors.

CONDENSER FAN PERFORMANCE

MODEL #	OUTDOOR CFM	EXTERNAL STATIC PRESSURE - Inches W.C.									
		0.2		0.4		0.6		0.8		1.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV120	5500	804	1.71	873	1.94	941	2.19	1008	2.46	1073	2.75

ELECTRICAL DATA – STANDARD MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV120	208-230/3/60	2	@ 19.3	123.0	2.00	5.9	3.00	8.7	58.03	70
DPV120	460/3/60	2	@ 7.5	49.5	2.00	2.8	3.00	4.0	23.68	30
DPV120	575/3/60	2	@ 6.4	40.0	2.00	2.2	3.00	3.2	19.80	25

ELECTRICAL DATA – OVERSIZED MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV120	208-230/3/60	2	@ 19.3	123.0	3.00	8.7	3.00	8.7	60.83	80
DPV120	460/3/60	2	@ 7.5	49.5	3.00	4.0	3.00	4.0	24.88	30
DPV120	575/3/60	2	@ 6.4	40.0	3.00	3.2	3.00	3.2	20.80	25

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

DPV120 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA5 (308)

DATE:

March 2008

"DPV" SERIES VERTICAL INDOOR SYSTEM GENERAL MECHANICAL SPECIFICATIONS

GENERAL

All models 5-15 tons ship as factory-charged unitized packages. The 20 ton model shall be shipped as separate evaporator and condensing unit modules (nitrogen holding charge only). All units may be field split and installed as separate modules to suit on-site requirements. All packages are designed for free-standing mounting on the floor, or on a field fabricated structural steel stand. The 5, 8, and 10 ton models are shipped with vertical evaporator fan discharge as standard. The 12, 15, and 20 ton models are shipped horizontal discharge as standard.

CABINET

All cabinets are completely constructed of heavy gauge galvanized steel. The entire unit interior (both evaporator and condensing section) is insulated with 1/2" thick, 2 lb. density insulation. Service panels are equipped with lifting handles for ease of removal and handling. Duct flanges for condenser discharge, condenser intake, and evaporator discharges, are provided with the unit for field installation. Duct flange on evaporator return is incorporated into the filter frame.

COMPRESSORS

All models utilize "Scroll" type hermetic compressors. Compressors are mounted on rubber isolators to minimize vibration transmission. Internal overload protection is provided. External high pressure and low pressure cutout switches are included in each compressor control circuit. Crankcase heaters are standard on all models.

REFRIGERANT CIRCUITS

The 5 ton units have a single refrigeration circuit. The 8-20 ton units feature two independent refrigeration circuits. Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports.

EVAPORATOR AND CONDENSER COILS

The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins. Both coils are employed in a draw-thru configuration. Large evaporator coil face area minimizes potential water blow-off.

INDOOR/OUTDOOR FANS

Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement. Blower wheels are fabricated of galvanized steel. Blowers employ solid steel shafts, supported in permanently lubricated ball bearing. All blowers are belt driven. Variable-pitch motor sheaves allow for field adjustment of blower rpm.

ELECTRICAL/CONTROLS

All units are completely factory wired with all necessary controls. Manual reset protection is provided on both evaporator and condenser motors. A manual reset circuit is also provided on each compressor control circuit in the event of high/low pressure cutout. A 24 volt control circuit, with oversize transformer, is provided for field connection.

FILTERS

All models are shipped with 2-inch thick medium-efficiency throwaway filters factory installed. Filter rack is external to the cabinet (shipped loose).

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

MECHANICAL SPECIFICATIONS
DPV120 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA5 (308)

DATE: March 2008

10 TON		Ambient Condenser Air Temperature											
		85°F						95°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
3600	75°F	115.4	91.5	124.8	73.0	134.5	53.8	111.0	89.6	120.2	71.1	129.8	52.2
	80°F	116.6	109.7	125.8	90.9	136.1	72.4	112.6	107.8	120.9	89.0	131.3	70.6
	85°F	122.5	122.5	126.8	109.4	136.8	90.2	118.8	118.8	121.9	107.4	131.8	88.4
4000	75°F	117.2	95.9	126.7	75.7	136.5	56.3	112.5	93.8	121.6	73.6	131.7	54.4
	80°F	118.8	115.5	127.4	95.2	138.2	75.1	114.7	113.4	122.5	93.2	133.2	73.3
	85°F	126.2	126.2	128.6	115.3	138.8	94.5	122.3	122.3	123.4	113.1	133.5	92.6
4400	75°F	118.4	100.0	127.9	78.1	138.3	57.3	114.9	98.7	122.9	76.1	133.3	55.5
	80°F	121.7	121.1	128.8	99.3	140.0	77.6	119.1	119.1	123.5	97.2	134.7	75.7
	85°F	129.4	129.4	129.9	120.7	140.2	98.6	125.1	125.1	126.4	119.5	134.8	96.7

10 TON		Ambient Condenser Air Temperature											
		105°F						115°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
3600	75°F	106.3	87.5	115.2	69.1	124.9	50.5	101.1	85.2	109.9	66.9	119.8	49.6
	80°F	107.2	105.0	115.9	87.0	126.2	68.7	103.4	103.0	110.5	84.8	121.0	66.8
	85°F	114.8	114.8	116.8	105.3	126.6	86.5	110.6	110.6	111.4	103.1	121.3	84.6
4000	75°F	108.6	92.4	116.5	71.6	126.5	52.5	103.5	90.1	111.0	69.4	121.3	50.6
	80°F	111.8	111.8	117.2	91.2	128.0	71.4	107.4	107.4	111.6	89.0	122.5	69.5
	85°F	118.0	118.0	119.5	111.8	128.1	90.7	113.6	113.6	114.4	109.4	122.6	88.8
4400	75°F	109.9	96.5	117.4	117.4	128.0	53.5	104.6	94.1	111.7	71.7	122.6	51.6
	80°F	114.5	114.5	118.1	95.2	129.0	73.9	109.8	109.8	112.2	93.0	123.3	71.9
	85°F	120.7	120.7	121.4	117.1	129.4	94.8	116.1	116.1	117.5	115.5	123.9	92.8



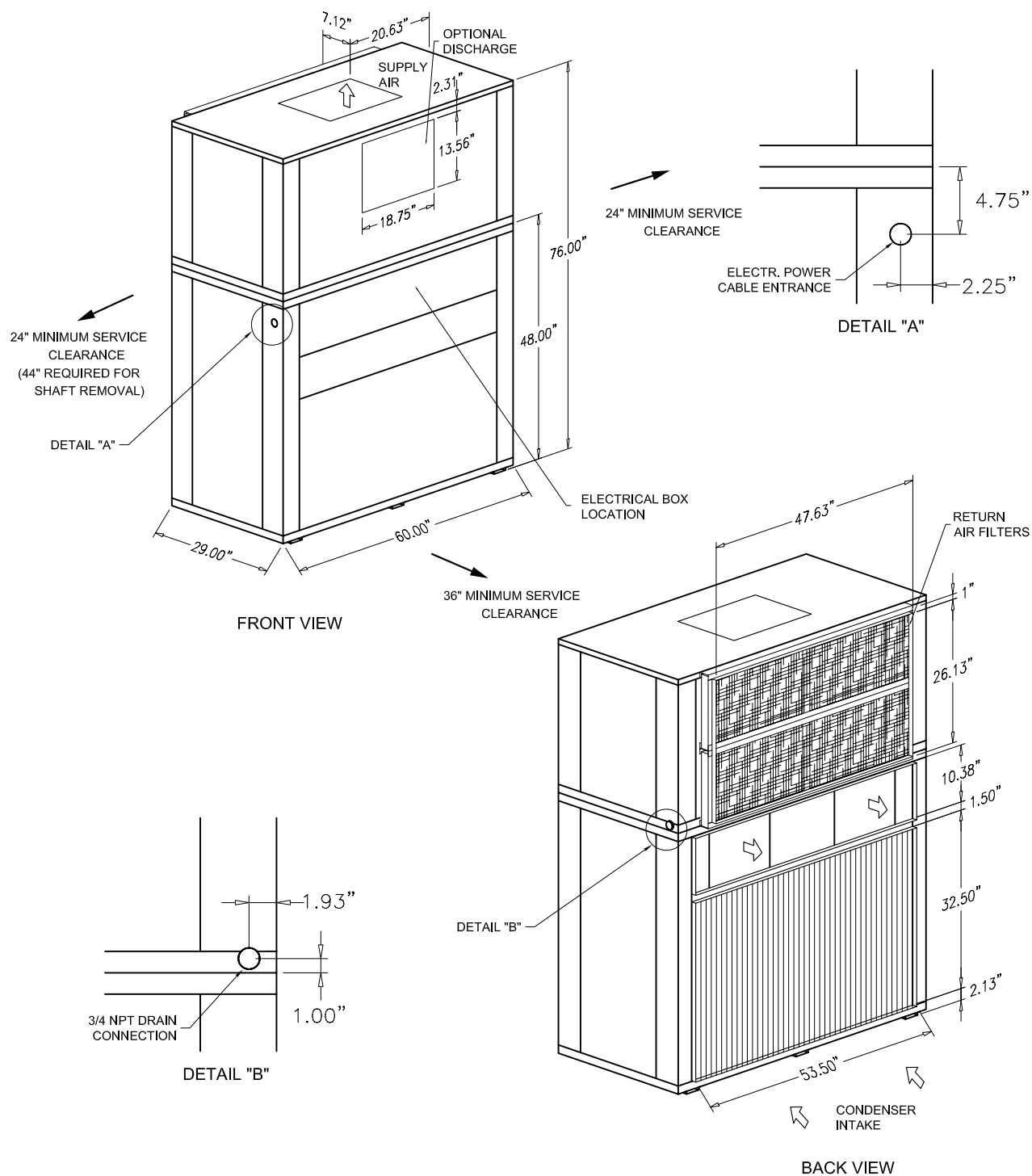
DESCRIPTION:

COOLING PERFORMANCE DATA
DPV120 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA5 (308)

DATE: March 2008

DPV096 AND DPV120 DIMENSIONAL DATA



PROJECT:

TAG:

Gross Cooling Capacity [Btuh]: 150,000*
Design CFM: 4,800

Energy Efficiency Ratio: 10.65 EER**
Net Cooling Capacity [Btuh]: 144,000**
Net Cooling CFM: 4,800

Evaporator Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 12x9
Drive: Adjustable Belt
Motor HP: 2.0 / 3.0
[Standard/Oversized]

Condenser Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 15x15
Drive: Adjustable Belt
Motor HP: 3.0
[Standard]

Evaporator Coil Face Area: 13.03 [sq ft]
Rows/FPI: 3/10
Refrigerant Control: TX Valve

Condenser Coil Face Area: 15.82 [sq ft]
Rows/FPI: 4/14

Compressor No./Type: 2/Scroll
Refrigerant Circuits: 2 / Independent

Refrigerant: R22
Charge: 12.13 Lbs./ circuit

Filters - Qty./Size: 2/14x20x2 & 4/14x25x2

Operating Weight [lbs.]: 1335
Shipping Weight [lbs.]: 1395

Condensate Connection: 3 / 4 NPT

*Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F wet bulb and CFM listed. Gross capacity does not include the effect of fan motor heat.

**Rated in accordance with ARI Standard 360-2000

EVAPORATOR FAN PERFORMANCE

MODEL #	SUPPLY CFM	EXTERNAL STATIC PRESSURE - Inches W.C.															
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV144	4300	717	1.06	792	1.23	862	1.41	928	1.58	989	1.75	1049	1.93	1100	2.10	1165	2.30
	4800	781	1.42	850	1.62	915	1.81	976	2.00	1035	2.20	1091	2.39	1144	2.58	1197	2.79
	5300	848	1.87	912	2.08	972	2.29	1030	2.57	1085	2.72	1138	2.94	1189	3.15	-	-

NOTE:

- At high evaporator air flows, and wet bulb conditions, condensate carry-over may occur. Adjust airflow downward as necessary.
- Values include pressure drop from wet coil and clean filters.
- Shaded areas indicate oversize motors.

CONDENSER FAN PERFORMANCE

MODEL #	OUTDOOR CFM	EXTERNAL STATIC PRESSURE - Inches W.C.									
		0.2		0.4		0.6		0.8		1.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV144	6600	675	1.77	735	2.06	792	2.46	848	2.60	900	3.00

ELECTRICAL DATA – STANDARD MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV144	208-230/3/60	2	@ 20.7	156.0	2.00	5.9	3.00	8.7	61.18	80
DPV144	460/3/60	2	@ 10.0	75.0	2.00	2.8	3.00	4.0	29.30	35
DPV144	575/3/60	2	@ 8.2	54.0	2.00	2.2	3.00	3.2	23.85	30

ELECTRICAL DATA – OVERSIZED MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV144	208-230/3/60	2	@ 20.7	156.0	3.00	8.7	3.00	8.7	63.98	80
DPV144	460/3/60	2	@ 10.0	75.0	3.00	4.0	3.00	4.0	30.50	40
DPV144	575/3/60	2	@ 8.2	54.0	3.00	3.2	3.00	3.2	24.85	30

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

DPV144 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA6 (308)

DATE:
March 2008

"DPV" SERIES VERTICAL INDOOR SYSTEM GENERAL MECHANICAL SPECIFICATIONS

GENERAL

All models 5-15 tons ship as factory-charged unitized packages. The 20 ton model shall be shipped as separate evaporator and condensing unit modules (nitrogen holding charge only). All units may be field split and installed as separate modules to suit on-site requirements. All packages are designed for free-standing mounting on the floor, or on a field fabricated structural steel stand. The 5, 8, and 10 ton models are shipped with vertical evaporator fan discharge as standard. The 12, 15, and 20 ton models are shipped horizontal discharge as standard.

CABINET

All cabinets are completely constructed of heavy gauge galvanized steel. The entire unit interior (both evaporator and condensing section) is insulated with 1/2" thick, 2 lb. density insulation. Service panels are equipped with lifting handles for ease of removal and handling. Duct flanges for condenser discharge, condenser intake, and evaporator discharges, are provided with the unit for field installation. Duct flange on evaporator return is incorporated into the filter frame.

COMPRESSORS

All models utilize "Scroll" type hermetic compressors. Compressors are mounted on rubber isolators to minimize vibration transmission. Internal overload protection is provided. External high pressure and low pressure cutout switches are included in each compressor control circuit. Crankcase heaters are standard on all models.

REFRIGERANT CIRCUITS

The 5 ton units have a single refrigeration circuit. The 8-20 ton units feature two independent refrigeration circuits. Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports.

EVAPORATOR AND CONDENSER COILS

The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins. Both coils are employed in a draw-thru configuration. Large evaporator coil face area minimizes potential water blow-off.

INDOOR/OUTDOOR FANS

Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement. Blower wheels are fabricated of galvanized steel. Blowers employ solid steel shafts, supported in permanently lubricated ball bearing. All blowers are belt driven. Variable-pitch motor sheaves allow for field adjustment of blower rpm.

ELECTRICAL/CONTROLS

All units are completely factory wired with all necessary controls. Manual reset protection is provided on both evaporator and condenser motors. A manual reset circuit is also provided on each compressor control circuit in the event of high/low pressure cutout. A 24 volt control circuit, with oversize transformer, is provided for field connection.

FILTERS

All models are shipped with 2-inch thick medium-efficiency throwaway filters factory installed. Filter rack is external to the cabinet (shipped loose).

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

MECHANICAL SPECIFICATIONS
DPV144 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA6 (308)

DATE: March 2008

12 TON		Ambient Condenser Air Temperature											
		85°F						95°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
4300	75°F	140.0	108.7	151.6	87.4	167.1	66.6	135.4	106.7	146.6	85.3	160.8	64.5
	80°F	145.8	132.3	152.8	108.0	168.5	88.6	139.8	129.4	147.1	106.0	162.2	86.2
	85°F	148.1	148.1	153.1	128.8	169.4	109.7	143.9	143.9	147.7	126.6	163.0	107.3
4800	75°F	143.1	114.2	154.1	90.5	168.7	69.2	138.1	112.0	148.9	88.4	162.3	66.8
	80°F	144.8	137.4	155.0	113.0	170.4	91.5	138.6	134.4	150.0	111.0	163.7	89.0
	85°F	152.8	152.8	156.8	137.3	171.2	114.5	148.4	148.4	151.5	134.9	164.3	112.1
5300	75°F	145.1	119.0	156.2	93.4	170.0	70.1	139.7	116.7	150.6	91.2	163.3	67.7
	80°F	147.8	144.5	157.3	117.9	171.4	94.0	142.5	141.4	151.6	115.7	164.4	91.5
	85°F	156.8	156.8	159.0	143.7	172.1	119.1	152.2	152.2	153.4	141.2	164.9	116.6

12 TON		Ambient Condenser Air Temperature											
		105°F						115°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
4300	75°F	130.2	104.3	141.1	83.0	153.9	63.2	124.4	101.8	134.7	80.4	146.1	60.3
	80°F	133.3	126.2	142.1	103.7	155.2	83.5	127.4	123.9	135.6	101.1	147.2	80.6
	85°F	139.4	139.4	143.2	125.6	155.8	104.8	134.3	134.3	136.8	122.8	147.6	101.8
4800	75°F	132.4	109.5	143.1	86.0	154.9	64.1	125.9	106.7	136.3	83.3	146.7	61.0
	80°F	134.4	132.3	144.0	108.7	156.1	86.2	130.9	130.9	137.2	106.0	147.7	83.2
	85°F	143.6	143.6	145.5	132.3	156.7	109.4	138.1	138.1	138.7	129.4	147.9	106.4
5300	75°F	133.7	114.1	144.5	88.8	155.4	64.8	126.8	111.3	137.6	86.1	146.8	61.6
	80°F	140.1	140.1	145.5	113.4	156.6	88.7	134.1	134.1	138.4	110.7	147.6	85.6
	85°F	147.0	147.0	146.9	138.5	157.0	113.9	141.2	141.2	142.1	137.2	147.8	110.8



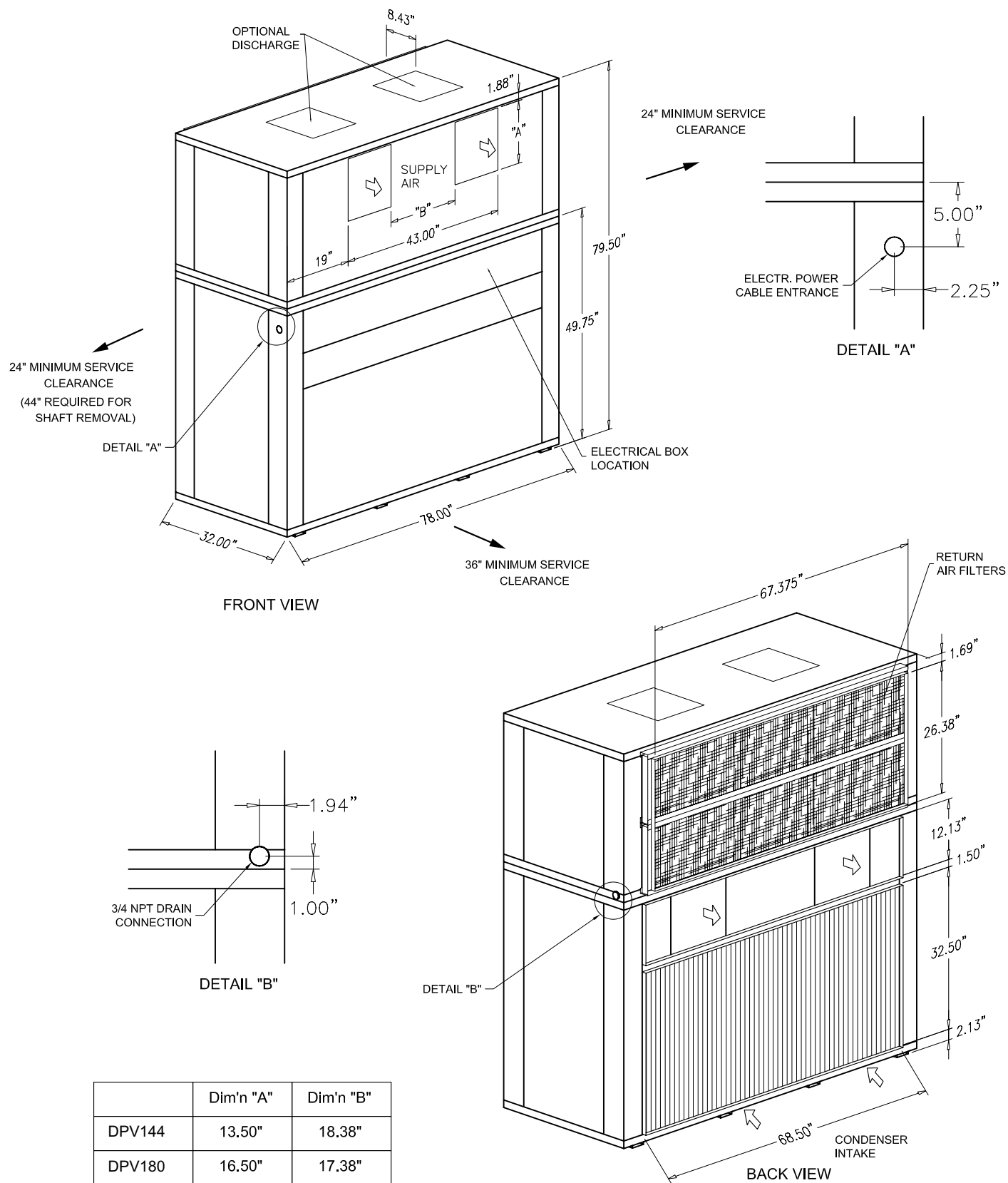
DESCRIPTION:

COOLING PERFORMANCE DATA
 DPV144 VERTICAL UNIT
 AIR-COOLED SELF-CONTAINED

Form YK145.12-PA6 (308)

DATE: March 2008

DPV0144 AND DPV180 DIMENSIONAL DATA



PROJECT:

TAG:

Gross Cooling Capacity [Btuh]: 186,000*
Design CFM: 6,000

Energy Efficiency Ratio: 9.80 EER**
Net Cooling Capacity [Btuh]: 178,000**
Net Cooling CFM: 5,500

Evaporator Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 15x9
Drive: Adjustable Belt
Motor HP: 5.0 / NA
[Standard/Oversized]

Condenser Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 15x15
Drive: Adjustable Belt
Motor HP: 5.0
[Standard]

Evaporator Coil Face Area: 13.03 [sq ft]
Rows/FPI: 4/10
Refrigerant Control: TX Valve

Condenser Coil Face Area: 15.82 [sq ft]
Rows/FPI: 4/14

Compressor No./Type: 2/Scroll
Refrigerant Circuits: 2 / Independent

Refrigerant: R22
Charge: 13.83 Lbs./ circuit

Filters - Qty./Size: 2/14x20x2 & 4/14x25x2

Operating Weight [lbs.]: 1465
Shipping Weight [lbs.]: 1525

Condensate Connection: 3 / 4 NPT

*Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F wet bulb and CFM listed. Gross capacity does not include the effect of fan motor heat.

**Rated in accordance with ARI Standard 360-2000

EVAPORATOR FAN PERFORMANCE

MODEL #	SUPPLY CFM	EXTERNAL STATIC PRESSURE - Inches W.C.															
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV180	5400	765	1.93	818	2.16	870	2.41	920	2.70	970	2.90	1010	3.20	1050	3.46	1100	3.70
	6000	824	2.52	873	2.77	920	3.03	967	3.30	1010	3.58	1052	3.90	1097	4.24	1137	4.59
	6600	903	3.33	947	3.60	991	3.89	1034	4.19	1076	4.49	1110	4.80	1150	5.10	-	-

NOTE:

1. At high evaporator air flows, and wet bulb conditions, condensate carry-over may occur. Adjust airflow downward as necessary.
2. Values include pressure drop from wet coil and clean filters.
3. Shaded areas indicate oversize motors.

CONDENSER FAN PERFORMANCE

MODEL #	OUTDOOR CFM	EXTERNAL STATIC PRESSURE - Inches W.C.									
		0.2		0.4		0.6		0.8		1.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV180	7500	725	2.35	780	2.67	834	3.01	886	3.37	936	3.76

ELECTRICAL DATA – STANDARD MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV180	208-230/3/60	2	@ 28.6	196.0	5.00	13.7	5.00	13.7	91.75	110
DPV180	460/3/60	2	@ 14.2	100.0	5.00	6.6	5.00	6.6	45.15	50
DPV180	575/3/60	2	@ 9.7	90.0	5.00	5.3	5.00	5.3	32.43	40

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

DPV180 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA7 (308)

DATE: March 2008

"DPV" SERIES VERTICAL INDOOR SYSTEM GENERAL MECHANICAL SPECIFICATIONS

GENERAL

All models 5-15 tons ship as factory-charged unitized packages. The 20 ton model shall be shipped as separate evaporator and condensing unit modules (nitrogen holding charge only). All units may be field split and installed as separate modules to suit on-site requirements. All packages are designed for free-standing mounting on the floor, or on a field fabricated structural steel stand. The 5, 8, and 10 ton models are shipped with vertical evaporator fan discharge as standard. The 12, 15, and 20 ton models are shipped horizontal discharge as standard.

CABINET

All cabinets are completely constructed of heavy gauge galvanized steel. The entire unit interior (both evaporator and condensing section) is insulated with 1/2" thick, 2 lb. density insulation. Service panels are equipped with lifting handles for ease of removal and handling. Duct flanges for condenser discharge, condenser intake, and evaporator discharges, are provided with the unit for field installation. Duct flange on evaporator return is incorporated into the filter frame.

COMPRESSORS

All models utilize "Scroll" type hermetic compressors. Compressors are mounted on rubber isolators to minimize vibration transmission. Internal overload protection is provided. External high pressure and low pressure cutout switches are included in each compressor control circuit. Crankcase heaters are standard on all models.

REFRIGERANT CIRCUITS

The 5 ton units have a single refrigeration circuit. The 8-20 ton units feature two independent refrigeration circuits. Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports.

EVAPORATOR AND CONDENSER COILS

The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins. Both coils are employed in a draw-thru configuration. Large evaporator coil face area minimizes potential water blow-off.

INDOOR/OUTDOOR FANS

Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement. Blower wheels are fabricated of galvanized steel. Blowers employ solid steel shafts, supported in permanently lubricated ball bearing. All blowers are belt driven. Variable-pitch motor sheaves allow for field adjustment of blower rpm.

ELECTRICAL/CONTROLS

All units are completely factory wired with all necessary controls. Manual reset protection is provided on both evaporator and condenser motors. A manual reset circuit is also provided on each compressor control circuit in the event of high/low pressure cutout. A 24 volt control circuit, with oversize transformer, is provided for field connection.

FILTERS

All models are shipped with 2-inch thick medium-efficiency throwaway filters factory installed. Filter rack is external to the cabinet (shipped loose).

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

MECHANICAL SPECIFICATIONS
DPV180 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA7 (308)

DATE: March 2008

15 TON		Ambient Condenser Air Temperature											
		85°F						95°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
5400	75°F	175.4	138.5	189.7	110.0	207.4	82.9	168.8	135.5	182.8	107.8	200.6	81.8
	80°F	177.1	165.8	191.0	137.5	209.1	111.5	171.2	163.1	184.0	134.7	201.4	108.4
	85°F	185.6	185.6	192.5	165.4	210.0	139.1	180.0	180.0	185.6	162.4	202.6	135.9
6000	75°F	178.1	145.0	192.4	114.6	209.1	86.2	171.2	142.0	185.1	111.6	200.0	82.9
	80°F	180.6	174.7	193.7	144.0	210.6	115.1	174.3	171.8	186.3	141.1	201.5	111.8
	85°F	191.3	191.3	195.5	174.2	211.2	145.0	185.4	185.4	187.9	171.1	201.9	141.8
6600	75°F	180.0	151.2	194.5	118.3	209.9	87.1	174.8	149.4	186.9	115.3	200.7	83.8
	80°F	184.9	183.4	195.8	150.2	211.3	118.3	180.4	180.4	188.2	147.2	201.6	114.8
	85°F	196.1	196.1	197.6	182.5	211.9	150.9	189.9	189.9	192.2	180.6	202.0	147.5

15 TON		Ambient Condenser Air Temperature											
		105°F						115°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
5400	75°F	161.6	132.3	175.0	104.6	189.4	78.3	153.0	128.5	166.3	101.0	178.7	74.3
	80°F	162.9	158.9	176.1	131.5	190.9	104.8	156.5	155.5	167.3	128.0	180.0	100.8
	85°F	173.9	173.9	177.6	159.0	191.4	132.3	166.9	166.9	168.7	155.4	180.4	128.3
6000	75°F	163.3	138.6	177.2	108.4	190.0	79.2	156.7	136.0	167.9	104.7	178.7	75.1
	80°F	169.0	169.0	178.0	137.8	191.3	108.0	162.1	162.1	168.7	134.3	179.8	104.0
	85°F	178.9	178.9	181.5	168.9	191.6	138.2	171.5	171.5	173.1	164.9	180.0	134.2
6600	75°F	167.0	145.9	178.7	112.0	190.2	80.0	158.3	141.9	169.0	108.2	178.6	75.8
	80°F	173.6	173.6	179.6	143.9	191.0	111.1	165.8	165.8	170.0	140.3	178.8	106.9
	85°F	183.0	183.0	184.5	177.0	191.2	143.8	175.4	175.4	177.6	174.3	178.9	139.7



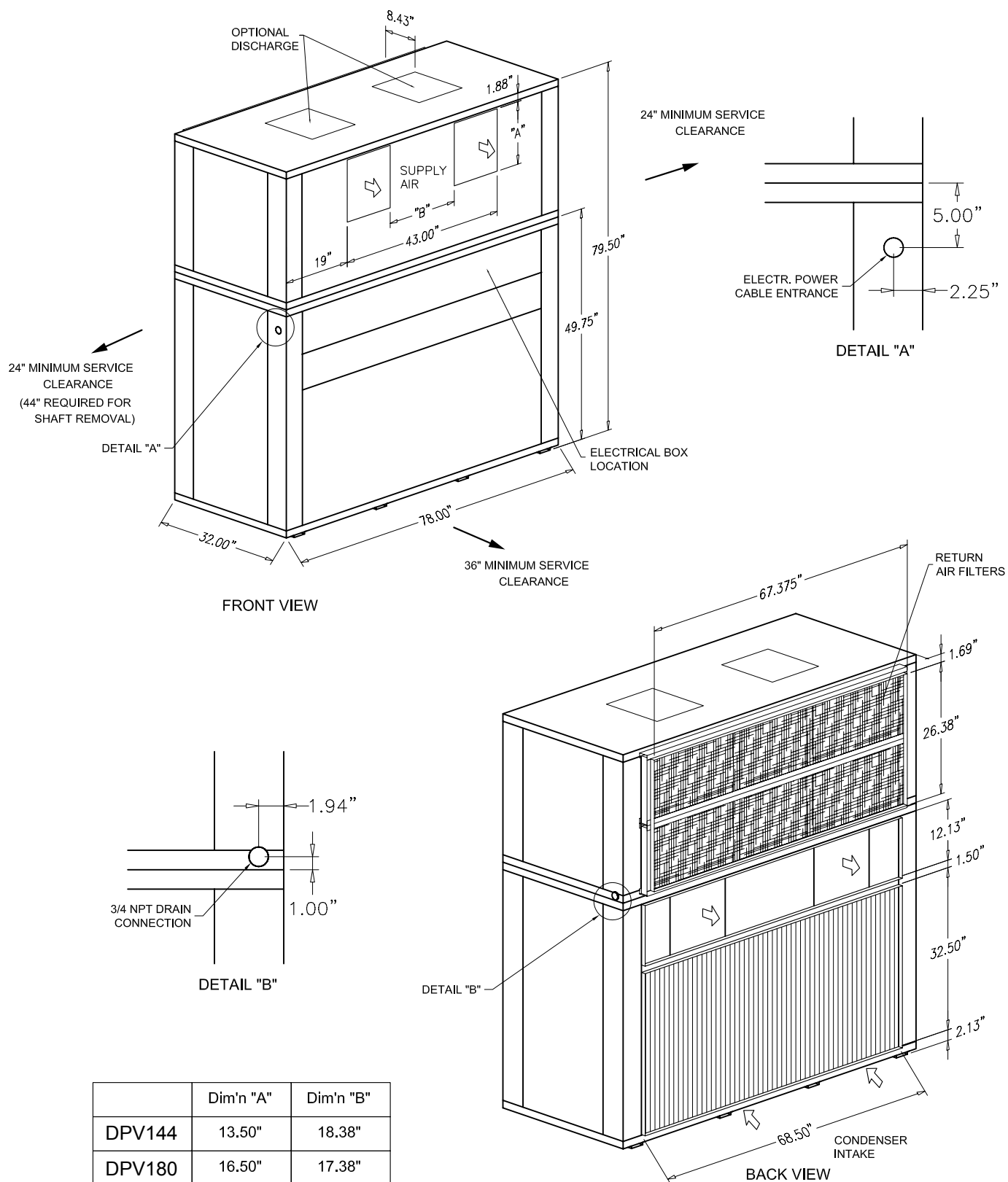
DESCRIPTION:

COOLING PERFORMANCE DATA
DPV180 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA7 (308)

DATE: March 2008

DPV144 AND DPV180 DIMENSIONAL DATA



DESCRIPTION:

DIMENSIONAL DATA
 DPV144 & DPV180 VERTICAL UNIT
 AIR-COOLED SELF-CONTAINED

Form YK145.12-PA7 (308)

DATE:

March 2008

PROJECT:

TAG:

Gross Cooling Capacity [Btuh]: 244,000*
Design CFM: 8,000

Energy Efficiency Ratio: 10.10 EER**
Net Cooling Capacity [Btuh]: 236,000**
Net Cooling CFM: 6,800

Evaporator Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 15x15
Drive: Adjustable Belt
Motor HP: 5.0 / 7.5
[Standard/Oversized]

Condenser Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 18x13
Drive: Adjustable Belt
Motor HP: 7.5
[Standard]

Evaporator Coil Face Area: 19.00 [sq ft]
Rows/FPI: 4/10
Refrigerant Control: TX Valve

Condenser Coil Face Area: 20.55 [sq ft]
Rows/FPI: 4/14

Compressor No./Type: 2/Scroll
Refrigerant Circuits: 2 / Independent

Refrigerant: R22
Charge: 18.35 Lbs./ circuit

Filters - Qty./Size: 6/20x25x2

Operating Weight [lbs.]: 1720
Shipping Weight [lbs.]: 1805

Condensate Connection: 3 / 4 NPT

*Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F wet bulb and CFM listed. Gross capacity does not include the effect of fan motor heat.

**Rated in accordance with ARI Standard 360-2000

EVAPORATOR FAN PERFORMANCE

MODEL #	SUPPLY CFM	EXTERNAL STATIC PRESSURE - Inches W.C.															
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV240	7200	657	1.89	717	2.19	774	2.51	829	2.84	875	3.18	933	3.53	972	3.89	1024	4.26
	8000	717	2.51	772	2.84	825	3.20	875	3.55	924	3.92	976	4.31	1022	4.72	1062	5.15
	8800	778	3.27	830	3.64	878	4.01	925	4.40	970	4.79	1015	5.20	1067	5.63	1102	6.08

NOTE:

1. At high evaporator air flows, and wet bulb conditions, condensate carry-over may occur. Adjust airflow downward as necessary.
2. Values include pressure drop from wet coil and clean filters.
3. Shaded areas indicate oversize motors.

CONDENSER FAN PERFORMANCE

MODEL #	OUTDOOR CFM	EXTERNAL STATIC PRESSURE - Inches W.C.									
		0.2		0.4		0.6		0.8		1.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV240	10200	656	3.72	700	4.12	741	4.50	781	4.91	820	5.32

ELECTRICAL DATA – STANDARD MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV240	208-230/3/60	2	@ 33.6	225.0	5.00	13.7	7.50	22.2	111.50	125
DPV240	460/3/60	2	@ 17.3	114.0	5.00	6.6	7.50	10.8	56.33	70
DPV240	575/3/60	2	@ 13.5	80.0	5.00	5.3	7.50	8.2	43.88	50

ELECTRICAL DATA – OVERSIZED MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV240	208-230/3/60	2	@ 33.6	225.0	7.50	22.2	7.50	22.2	120.00	150
DPV240	460/3/60	2	@ 17.3	114.0	7.50	10.8	7.50	10.8	60.53	70
DPV240	575/3/60	2	@ 13.5	80.0	7.50	8.4	7.50	8.4	47.18	60

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

DPV240 VERTICAL UNIT
SELF-CONTAINED AIR-COOLED

Form YK145.12-PA8 (308)

DATE: March 2008

"DPV" SERIES VERTICAL INDOOR SYSTEM GENERAL MECHANICAL SPECIFICATIONS

GENERAL

All models 5-15 tons ship as factory-charged unitized packages. The 20 ton model shall be shipped as separate evaporator and condensing unit modules (nitrogen holding charge only). All units may be field split and installed as separate modules to suit on-site requirements. All packages are designed for free-standing mounting on the floor, or on a field fabricated structural steel stand. The 5, 8, and 10 ton models are shipped with vertical evaporator fan discharge as standard. The 12, 15, and 20 ton models are shipped horizontal discharge as standard.

CABINET

All cabinets are completely constructed of heavy gauge galvanized steel. The entire unit interior (both evaporator and condensing section) is insulated with 1/2" thick, 2 lb. density insulation. Service panels are equipped with lifting handles for ease of removal and handling. Duct flanges for condenser discharge, condenser intake, and evaporator discharges, are provided with the unit for field installation. Duct flange on evaporator return is incorporated into the filter frame.

COMPRESSORS

All models utilize "Scroll" type hermetic compressors. Compressors are mounted on rubber isolators to minimize vibration transmission. Internal overload protection is provided. External high pressure and low pressure cutout switches are included in each compressor control circuit. Crankcase heaters are standard on all models.

REFRIGERANT CIRCUITS

The 5 ton units have a single refrigeration circuit. The 8-20 ton units feature two independent refrigeration circuits. Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports.

EVAPORATOR AND CONDENSER COILS

The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins. Both coils are employed in a draw-thru configuration. Large evaporator coil face area minimizes potential water blow-off.

INDOOR/OUTDOOR FANS

Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement. Blower wheels are fabricated of galvanized steel. Blowers employ solid steel shafts, supported in permanently lubricated ball bearing. All blowers are belt driven. Variable-pitch motor sheaves allow for field adjustment of blower rpm.

ELECTRICAL/CONTROLS

All units are completely factory wired with all necessary controls. Manual reset protection is provided on both evaporator and condenser motors. A manual reset circuit is also provided on each compressor control circuit in the event of high/low pressure cutout. A 24 volt control circuit, with oversize transformer, is provided for field connection.

FILTERS

All models are shipped with 2-inch thick medium-efficiency throwaway filters factory installed. Filter rack is external to the cabinet (shipped loose).

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

MECHANICAL SPECIFICATIONS
DPV240 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA8 (308)

DATE: March 2008

20 TON		Ambient Condenser Air Temperature											
		85°F						95°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
7200	75°F	230.3	184.1	248.7	146.4	269.3	108.2	221.9	180.3	239.8	142.7	258.3	104.3
	80°F	233.3	221.4	250.2	182.6	270.6	146.3	223.9	216.6	241.0	178.9	259.4	142.1
	85°F	262.7	262.7	257.8	222.3	278.1	185.8	256.4	256.4	249.3	218.7	266.7	181.7
8000	75°F	233.4	193.0	251.7	151.6	270.0	111.9	224.6	189.1	242.4	147.9	258.0	107.4
	80°F	237.1	233.3	253.1	191.3	271.6	150.9	229.0	228.3	243.4	187.5	259.7	146.6
	85°F	274.3	274.3	262.9	235.0	279.6	194.2	267.2	267.2	253.9	231.3	267.7	190.0
8800	75°F	238.2	203.1	254.1	156.6	269.4	112.7	229.5	199.0	244.2	152.7	256.9	108.2
	80°F	245.1	245.1	255.4	199.7	271.2	155.0	237.2	237.2	245.4	195.8	258.4	150.5
	85°F	283.8	283.8	267.3	247.1	279.9	202.1	276.1	276.1	261.2	245.1	267.1	197.7

20 TON		Ambient Condenser Air Temperature											
		105°F						115°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
7200	75°F	212.7	176.3	229.6	138.6	245.6	101.9	204.5	173.1	218.5	134.1	231.2	96.6
	80°F	215.3	212.5	230.8	174.9	246.5	137.4	208.0	208.0	219.3	170.3	231.9	132.1
	85°F	249.3	249.3	239.8	214.8	253.8	177.1	241.6	241.6	229.1	210.4	239.2	171.9
8000	75°F	217.3	186.4	231.7	143.6	244.6	102.6	207.0	181.7	220.0	139.0	229.6	97.1
	80°F	223.1	223.1	232.9	183.4	246.1	141.7	214.4	214.4	220.6	178.7	230.7	136.4
	85°F	259.5	259.5	246.4	228.9	254.1	185.3	250.9	250.9	236.3	224.2	238.8	180.0
8800	75°F	219.6	194.6	233.2	148.4	242.7	103.0	208.7	189.7	220.1	143.6	226.8	97.3
	80°F	228.4	228.4	234.1	191.6	244.2	145.5	218.7	218.7	224.8	188.5	227.9	139.9
	85°F	267.4	267.4	251.9	240.8	252.9	192.9	257.9	257.9	241.6	236.0	236.5	187.5



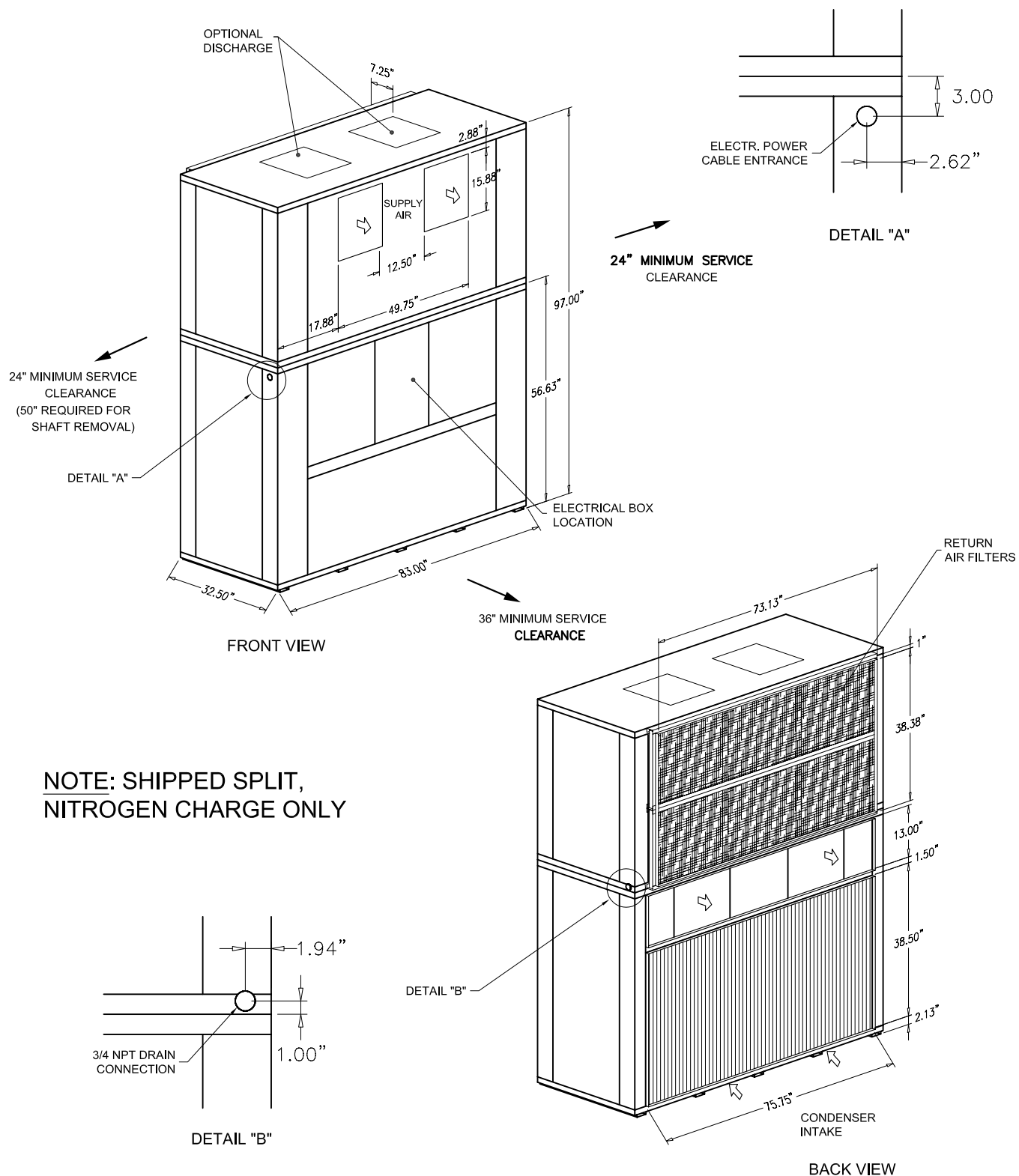
DESCRIPTION:

COOLING PERFORMANCE DATA
 DPV240 VERTICAL UNIT
 AIR-COOLED SELF-CONTAINED

Form YK145.12-PA8 (308)

DATE: March 2008

DPV240 DIMENSIONAL DATA



DESCRIPTION:

DIMENSIONAL DATA
DPV240 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA8 (308)

DATE:

March 2008

PROJECT:

TAG:

Gross Cooling Capacity [Btuh]: 304,000*
Design CFM: 10,000

Energy Efficiency Ratio: 9.60 EER**
Net Cooling Capacity [Btuh]: 286,000**
Net Cooling CFM: 8,800

Evaporator Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 15x15
Drive: Adjustable Belt
Motor HP: 7.5 / 10.0
[Standard/Oversized]

Condenser Fan No./Type: 2/CENTRIFUGAL
Diameter x Width [in]: 18x13
Drive: Adjustable Belt
Motor HP: 7.5
[Standard]

Evaporator Coil Face Area: 19.797 [sq ft]
Rows/FPI: 4/10
Refrigerant Control: TX Valve

Condenser Coil Face Area: 24.13 [sq ft]
Rows/FPI: 4/14

Compressor No./Type: 3/Scroll
Refrigerant Circuits: 3 / Independent

Refrigerant: R22
Charge: 14.65 Lbs./ circuit

Filters - Qty./Size: 8/20x20x2

Operating Weight [lbs.]: 1995
Shipping Weight [lbs.]: 2080

Condensate Connection: 3 / 4 NPT

*Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F wet bulb and CFM listed. Gross capacity does not include the effect of fan motor heat.

**Rated in accordance with ARI Standard 360-2000

EVAPORATOR FAN PERFORMANCE

MODEL #	SUPPLY CFM	EXTERNAL STATIC PRESSURE - Inches W.C.															
		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV300	9000	785	3.42	836	3.80	884	4.18	930	4.56	975	4.97	1019	5.38	1068	5.81	1100	6.26
	10000	861	4.59	907	5.00	952	5.43	994	5.85	1035	6.27	1076	6.73	1116	7.19	1155	7.66
	11000	938	6.02	981	6.48	1022	6.94	1061	7.39	1100	7.87	1137	8.34	1174	8.82	1210	9.32

NOTE:

- At high evaporator air flows, and wet bulb conditions, condensate carry-over may occur. Adjust airflow downward as necessary.
- Values include pressure drop from wet coil and clean filters.
- Shaded areas indicate oversize motors.

CONDENSER FAN PERFORMANCE

MODEL #	OUTDOOR CFM	EXTERNAL STATIC PRESSURE - Inches W.C.									
		0.2		0.4		0.6		0.8		1.0	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
DPV300	11500	687	4.76	728	5.20	767	5.64	805	6.09	841	6.52

ELECTRICAL DATA – STANDARD MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV300	208-230/3/60	3	@ 32.1	195.0	7.50	22.2	7.50	22.2	148.73	175
DPV300	460/3/60	3	@ 16.4	95.0	7.50	10.8	7.50	10.8	74.90	90
DPV300	575/3/60	3	@ 12.0	80.0	7.50	8.2	7.50	8.2	55.40	60

ELECTRICAL DATA – OVERSIZED MOTOR

MODEL #	VOLTAGE	COMPRESSOR			EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY	RLA	LRA	HP	FLA	HP	FLA		
DPV300	208-230/3/60	3	@ 32.1	195.0	10.00	25.6	7.50	22.2	152.13	175
DPV300	460/3/60	3	@ 16.4	95.0	10.00	11.6	7.50	10.8	75.70	90
DPV300	575/3/60	3	@ 12.0	80.0	10.00	9.6	7.50	8.2	56.80	60

Johnson Controls maintains a continuous product improvement policy, therefore specifications are subject to change without notice.



DESCRIPTION:

DPV300 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA9 (308)

DATE:
March 2008

"DPV" SERIES VERTICAL INDOOR SYSTEM GENERAL MECHANICAL SPECIFICATIONS

GENERAL

All models 5-15 tons ship as factory-charged unitized packages. The 20 ton model shall be shipped as separate evaporator and condensing unit modules (nitrogen holding charge only). All units may be field split and installed as separate modules to suit on-site requirements. All packages are designed for free-standing mounting on the floor, or on a field fabricated structural steel stand. The 5, 8, and 10 ton models are shipped with vertical evaporator fan discharge as standard. The 12, 15, and 20 ton models are shipped horizontal discharge as standard.

CABINET

All cabinets are completely constructed of heavy gauge galvanized steel. The entire unit interior (both evaporator and condensing section) is insulated with 1/2" thick, 2 lb. density insulation. Service panels are equipped with lifting handles for ease of removal and handling. Duct flanges for condenser discharge, condenser intake, and evaporator discharges, are provided with the unit for field installation. Duct flange on evaporator return is incorporated into the filter frame.

COMPRESSORS

All models utilize "Scroll" type hermetic compressors. Compressors are mounted on rubber isolators to minimize vibration transmission. Internal overload protection is provided. External high pressure and low pressure cutout switches are included in each compressor control circuit. Crankcase heaters are standard on all models.

REFRIGERANT CIRCUITS

The 5 ton units have a single refrigeration circuit. The 8-20 ton units feature two independent refrigeration circuits. Each refrigeration circuit includes an adjustable thermal expansion valve (with external equalizer), liquid line filter drier, sight glass/moisture indicator, and service gauge ports.

EVAPORATOR AND CONDENSER COILS

The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to rippled aluminum plate fins. Both coils are employed in a draw-thru configuration. Large evaporator coil face area minimizes potential water blow-off.

INDOOR/OUTDOOR FANS

Forward curved, double inlet and double width centrifugal blowers are used for both evaporator and condenser air movement. Blower wheels are fabricated of galvanized steel. Blowers employ solid steel shafts, supported in permanently lubricated ball bearing. All blowers are belt driven. Variable-pitch motor sheaves allow for field adjustment of blower rpm.

ELECTRICAL/CONTROLS

All units are completely factory wired with all necessary controls. Manual reset protection is provided on both evaporator and condenser motors. A manual reset circuit is also provided on each compressor control circuit in the event of high/low pressure cutout. A 24 volt control circuit, with oversize transformer, is provided for field connection.

FILTERS

All models are shipped with 2-inch thick medium-efficiency throwaway filters factory installed. Filter rack is external to the cabinet (shipped loose).

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DESCRIPTION:

MECHANICAL SPECIFICATIONS
DPV300 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA9 (308)

DATE: March 2008

25 TON		Ambient Condenser Air Temperature											
		85°F						95°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
9000	75°F	285.6	225.4	308.9	180.1	339.4	136.0	275.0	220.8	297.5	175.4	325.1	133.6
	80°F	291.7	271.6	311.4	224.0	342.3	182.2	281.0	267.2	299.6	219.3	327.5	176.7
	85°F	304.3	304.3	314.2	269.9	344.0	227.1	294.8	294.8	302.6	265.0	329.0	221.8
10000	75°F	290.5	236.1	313.5	186.4	341.9	140.9	279.2	231.3	301.6	181.7	326.7	135.2
	80°F	297.4	286.2	315.8	234.3	344.8	187.9	286.0	281.3	303.7	229.7	329.2	182.2
	85°F	313.5	313.5	319.3	284.1	346.0	236.7	303.4	303.4	306.8	279.0	330.2	231.3
11000	75°F	291.3	244.8	317.1	192.3	344.4	142.8	279.6	240.0	304.7	187.5	328.3	136.9
	80°F	301.6	298.9	319.4	244.1	346.7	193.2	296.7	296.7	306.8	239.4	330.6	187.6
	85°F	321.2	321.2	320.7	296.4	347.7	246.2	310.6	310.6	311.0	293.2	330.9	240.5

25 TON		Ambient Condenser Air Temperature											
		105°F						115°F					
		EWB						EWB					
		62°F		67°F		72°F		62°F		67°F		72°F	
CFM	EDB	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
9000	75°F	263.1	215.6	285.0	170.3	309.2	127.7	249.6	209.8	270.6	164.5	291.5	121.1
	80°F	266.8	259.8	286.9	214.3	311.3	170.8	255.5	254.0	272.2	208.6	293.1	164.3
	85°F	284.4	284.4	289.4	259.5	312.6	216.0	272.7	272.7	274.6	253.5	293.9	209.5
10000	75°F	266.4	225.8	288.2	176.3	309.8	129.1	255.4	221.7	273.3	170.5	290.9	122.1
	80°F	273.7	273.5	290.2	224.5	312.1	176.1	266.2	266.2	274.9	218.7	292.6	169.2
	85°F	292.3	292.3	295.5	275.4	312.8	225.4	279.9	279.9	281.6	268.8	292.9	218.7
11000	75°F	270.4	236.7	290.8	182.0	310.6	130.5	256.8	230.6	275.2	176.0	291.2	123.5
	80°F	284.5	284.5	292.6	234.1	312.5	181.2	270.9	270.9	276.7	228.3	292.2	174.3
	85°F	298.8	298.8	297.1	286.7	312.6	234.4	285.8	285.8	287.5	283.3	291.4	227.5



DESCRIPTION:

COOLING PERFORMANCE DATA
DPV300 VERTICAL UNIT
AIR-COOLED SELF-CONTAINED

Form YK145.12-PA9 (308)

DATE: March 2008

DPV300 DIMENSIONAL DATA

